

IL-3, human recombinant

Information

Gene ID	3562
Accession #	P08700
Alternate Names	Hematopoietic growth factor, MCGF, Multipotential colony-stimulating factor, P-cell-stimulating factor.
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 15.0 kDa, a single non-glycosylated polypeptide chain containing 133 amino acids.
AA Sequence	APMTQTSLK TSWVNCNMI DEIITHLKQP PLPLDFNNL NGEDQDILME NNLRRPNLEA FNRAVKSLQN ASAIESILKN LLPCLPLATA APTRHPIHIK DGDWNEFRRK LTFYKLTLEN AQAQQTLSL AIF
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human TF-1 cells is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁷ IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
IL-3, human recombinant	10 µg	100 µg	500 µg

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- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ μ g of rHuIL-3 as determined by LAL method.

Description

Interleukin-3 (IL-3) is an interleukin, a type of biological signal (cytokine) which is encoded by the IL-3 gene located on chromosome 5 and produced primarily by activated T cells beside human thymic epithelial cells, activated murine mast cells, murine keratinocytes and neurons/astrocytes. The protein acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. The human IL-3 reported to be a monomer, as it is known, contains 133 amino acids residues which is a single non-glycosylated polypeptide. Specifically, human and murine IL-3 share low homology and it does not show activity on murine cells.

Reference

1. Yang YC, Ciarletta AB, Temple PA, et al. 1986. Cell. 47:3-10.
2. Otsuka T, Miyajima A, Brown N, et al. 1988. J Immunol. 140:2288-95.
3. Dorssers L, Burger H, Bot F, et al. 1987. Gene. 55:115-24.
4. Feng Y, Klein BK, McWherter CA. 1996. J Mol Biol. 259:524-41.

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